

REMARKS

Summary of Office Action

Claims 1, 2, 5-16, 27, 29-39, 41, 43-46, 49-54, 58, 59, 64, 65, 67, 72, 73, 76, and 78-87 are pending in this application.

The Examiner withdrew the finality of the last action in view of new rejections made in the August 10, 2005 Office Action. The Examiner also withdrew the indicated allowability of claims 1, 2, 5-10, 14, 27, 29-39, 41, 43-46, 49-54, 58, 59, 64-65, 67, 72, 73, 78-80, 86, and 87 in view of the new rejections.

Claims 1, 27, 29, 31, 35-39, 41, 43, 50, 51, 54, 58, 65, 86, and 87 were rejected under 35 U.S.C. § 102(e) as being anticipated by Bremer et al. U.S. Patent No. 6,022,351 (hereinafter "Bremer").

Dependent claims 44 and 64 were rejected under 35 U.S.C. § 103(a) as being obvious from Bremer.

Claims 2, 5, 8-16, 30-32, 34, 45, 46, 49, 59, 67, 72, 73, 76, and 78-85 were rejected under 35 U.S.C. § 103(a) as being obvious from Bremer and Herrington et al. U.S. Patent No. 6,379,363 (hereinafter "Herrington").

Dependent claims 33, 52, and 53 were rejected under 35 U.S.C. § 103(a) as being obvious from Bremer and Lerch U.S. Patent No. 5,800,436 (hereinafter "Lerch").

Dependent claims 6, 7, and 78 were rejected under 35 U.S.C. § 103(a) as being obvious from Bremer, Herrington, and Lerch.

And lastly, the Examiner objected to claims 81-84 because they depend from a canceled claim.

Summary of Applicants' Reply

Applicants have amended dependent claim 81 to change its dependency from previously canceled claim 75 to independent claim 11. Dependent claim 87 was amended to correct a typographical error.

Claims 1 and 45 were amended to broaden their scope and to more clearly define the invention. And claims 2, 11, and 27 were also amended to more clearly define the invention.

No new matter has been added.

Reconsideration of this application in view of the amendments and following remarks is respectfully requested.

Rejections of Claims Under 35 U.S.C. § 102(e)

Independent claims 1 and 27 and dependent claims 29, 31, 35-39, 41, 43, 50, 51, 54, 58, 65, 86, and 87 were rejected under 35 U.S.C. § 102(e) as being anticipated by Bremer.

These rejections are respectfully traversed.

Independent Claim 1

Bremer does not disclose or suggest every limitation of applicants' independent claim 1.

Claim 1 defines a second clamping member having an opening that has "a recessed area forming a cutting surface."

As shown in Bremer's FIGS. 4 and 5, Bremer has no such recessed area. Opening 25 extends completely through lock element 11, from outer face 41 to the inner surface.

Claim 1 also defines an extension member having "an integrally formed stop ... outside of and adjacent the outer surface of the second clamping element" (emphasis added).

Bremer neither shows nor suggests such a stop. In contrast, as shown in Bremer's FIGS. 6 and 7, shank 13 is cut off "so that the outer face 41 of ... lock element 11 is substantially flush" (Bremer column 5, lines 55-56). There is no stop outside of and adjacent the outer face of Bremer's lock element. Bremer's ratchet teeth 14 and locking teeth 27,28 perform the function of a stop within lock element 11.

Claim 1 further defines the stop as being formed by "twisting against the cutting surface."

Bremer neither discloses nor suggests a stop formed in this way. Indeed, Bremer discloses that the "remaining portion of shank 13 ... is ... removed by cutting it off, with a blade, a heating unit, or in any other suitable conventional manner" (Bremer column 5, lines 51-55). Because Bremer does not disclose a recessed area forming a cutting surface, twisting the extension member against such a cutting surface cannot be included in "any other suitable conventional manner."

Claim 1 still further defines the stop as being "sized and configured to fit substantially within the recessed area."

Bremer again neither discloses nor suggests such a stop or such a recessed area.

Applicants' recessed area provides a cutting surface against which the stop is formed and then receives the stop to "minimize the profile of the cranial flap clamp" (applicants' specification, page 8, line 26).

Because Bremer's ratchet teeth 14 of shank 13 and locking teeth 27,28 of lock element 11 perform the stop function within lock element 11, Bremer has no need for a recessed area to provide a cutting surface, no need for a stop formed outside the outer surface of lock element 11, and no need for a recessed area to receive the stop.

Accordingly, independent claim 1 is not anticipated by or rendered obvious from Bremer.

For at least the above reasons, dependent claims 50, 51, 54, 58, and 65, which depend directly or indirectly from claim 1, are also not anticipated by or rendered obvious from Bremer (i.e., dependent claims are patentable if their independent claim is patentable).

Independent Claim 27

Bremer also does not disclose or suggest every limitation of applicants' independent claim 27.

Claim 27 defines a second clamping member having a recessed area forming a cutting surface. As discussed above with respect to claim 1, Bremer has no such recessed area.

Claim 27 also defines "an integrally formed stop on the extension member abutting the second clamping member" (emphasis added). As also discussed above with respect to claim 1, Bremer has no such stop.

Therefore, independent claim 27 is not anticipated by or rendered obvious from Bremer.

For at least these reasons, dependent claims 29, 31, 35-39, 41, 43, 86, and 87, which depend directly or indirectly from claim 27, are also not anticipated by or rendered obvious from Bremer (i.e., dependent claims are patentable if their independent claim is patentable).

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Accordingly, applicants respectfully request that the rejections of claims 1, 27, 29, 31, 35-39, 41, 43, 50, 51, 54, 58, 65, 86, and 87 under 35 U.S.C. § 102(e) be withdrawn.

Rejections of Claims Under 35 U.S.C. § 103(a)

Independent claims 2, 11, and 45 and dependent claims 5, 8-10, 12-16, 30-32, 34, 46, 49, 59, 67, 72, 73, 76, and 78-85 were rejected under 35 U.S.C. § 103(a) as being obvious from Bremer and Herrington. Dependent claims 44 and 64 were rejected under 35 U.S.C. § 103(a) as being obvious from Bremer. Dependent claims 33, 52, and 53 were rejected under 35 U.S.C. § 103(a) as being obvious from Bremer and Lerch. And dependent claims 6, 7, and 78 were rejected under 35 U.S.C. § 103(a) as being obvious from Bremer, Herrington, and Lerch.

These rejections are respectfully traversed.

Amended independent claims 2, 11, and 45 each require a smooth extension member having a stop, or a smooth extension member having a crimping force applied to it.

A smooth extension member advantageously allows the second member to easily slide towards the first member. That is, less force is needed to move the second member toward the first than would be needed if the extension member had ridges or ratchet teeth in contact with the second member. This allows a surgeon to apply less force to the clamp, and thus to better

control the clamp, during what is typically a delicate surgical procedure. Also, a smooth extension member may be less costly to manufacture than one with teeth or ridges, because such teeth or ridges usually involve additional machining operations.

Neither Bremer nor Herrington discloses or suggests a smooth extension member. Bremer discloses ratchet teeth 14 on at least “sufficient portions” of its shank 13 “to allow effective fastening of the fastener element 10” (Bremer column 4, lines 27-29).

Herrington discloses a stem 16 having “a plurality of fine rectangularly-shaped annular ridges 32” and “a plurality of coarse arcuately-shaped annular ridges 34” (Herrington column 4, lines 30-36). Furthermore, Herrington discloses that its cap 14 has a plurality of distal tips 58 that form “an engagement region 59 about the stem 16” in a ratchet-type arrangement with the annular ridges (Herrington column 4, line 67; *see also* FIG. 3).

Although Lerch discloses a pin 11, no cited reference provides any reason or motivation whatsoever to replace Bremer’s shank 13 or Herrington’s stem 16 with Lerch’s pin 11, because the functions performed by ratchet teeth 14 and annular ridges 32/34 would be lost by such a replacement.

Therefore, independent claims 2, 11, and 45 are not rendered obvious from Herrington, Bremer, or Lerch, either alone or in combination with each other.

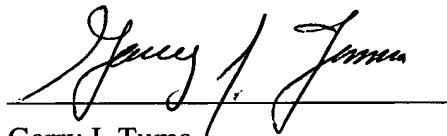
For at least the above reasons, dependent claims 5-10, 12-16, 30-34, 44, 46, 49, 52, 53, 59, 64, 67, 72, 73, 76, and 78-85, which depend directly or indirectly from either claim 2, 11, or 45, are also not obvious from any of the cited references, either alone or in combination (i.e., dependent claims are patentable if their independent claim is patentable).

Accordingly, applicants respectfully request that the rejections of claims 2, 5-16, 30-34, 44, 45, 46, 49, 52, 53, 59, 64, 67, 72, 73, 76, and 78-85 under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

The foregoing demonstrates that claims 1, 2, 5-16, 27, 29-39, 41, 43-46, 49-54, 58, 59, 64, 65, 67, 72, 73, 76, and 78-87 are allowable. This application is therefore in condition for allowance. Reconsideration and allowance are accordingly respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Garry J. Tuma", is written over a horizontal line.

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